ANNUAL INDEX

Volume 35
2000

Author Index

A

Abadie, J.M., 613
Abdulkader, F., 31
Abedin, L., 1001
Adlerstein, D., 881
Adlof, R.O., 131
Akimoto, K., 71
Akpinar, A., 23
Alejandre, M.J., 587
Ando, K., 401
Ando, Y., 579
Arnett, D.K., 827
Ashford, A., 1377
Ausman, L.M., 1037
Ayala-Torres, S., 305

B

Balliano, G., 297
Balogh, G., 1093
Barbuch, R., 257
Barclay, W.R., 1377
Bard, M., 257
Barré, H., 1099
Basu, S., 427
Baur, L.A., 77
Bell, J.D., 769, 1313
Bell, J.G., 745
Bellenger-Germain, S.H., 1011
Bellon, G., 1259
Bendel, R.B., 927
Benito, P., 777, 783, 1065
Bennett, M.J., 721
Benveniste, P., 263
Berdeaux, O., 91
Berlot, J.-P., 1397
Bernasconi, A.M., 1335
Besson, C., 437
Bettger, W.J., 1305
Billeaud, C., 561
Bistrian, B.R., 975
Bizeau, M.E., 596
Bjerve, K.S., 1185
Bohrer, A., 839
Boitard, E., 919
Bønaa, K.H., 1185
Boué, C., 561, 815
Bouvier-Navé, P., 263
Bowen, R.A.R., 389
Boyle-Roden, E., 1353
Brash, A.R., 709, 947
Brenna, J.T., 105
Brenner, R.R., 1335
Briski, K.P., 171
Broitman, S.A., 181
Brown, J.E., 1319
Brown, P.B., 155
Brown, W., 1055
Brun, J.L., 561
Brunaldi, K., 31
Brynes, A.E., 769
Buisson-Legendre, N., 1259
Burr, J.A., 1045
Burus, I., 1179

C

Calder, P.C., 763
Carazo, A., 587
Carballeira, N.M., 1371
Carlini, E.A., 45
Carrapiso, A.I., 1167
Carvajal, O., 1345
Carvalho, M.D.T., 55
Cassagne, C., 487
Castillo, O., 143
Cattel, L., 297
Causeret, C., 1117
Cazenave, J.-P., 453
Cenedella, R.J., 289
Ceruti, M., 297
Cesio, M.V., 1033
Chahinian, H., 919
Chaînier, F., 1099
Chander, A., 35
Chang, Q., 461
Chardigny, J.-M., 91, 911
Chattopadhyaya, R., 495
Cheema, S.K., 421
Chen, J.M., 481
Chen, Q., 871
Chen, S.C., 621
Cherkaoui Malki, M., 1397
Cheruku, S., 927
Chevalier, S., 487
Chinen, I., 373
Chu, F.-L.E., 1387
Clandinin, M.T., 389, 421, 833
Clark, R.M., 803
Clore, J.N., 1281
Coffa, G., 1195
Cohena, Z., 881
Combe, N., 561
Combe, N.A., 815
Comeau, L.-C., 919
Coni, E., 45
Conquer, J.A., 149, 1305
Cook, J., 899
Coon, H., 827
Cooper, D.M., 967
Cordelet, C., 911
Cossins, A.R., 745
Couch, S.C., 927
Coutts, G.A., 1313
Covas, M.I., 633
Crawford, M.A., 105, 567
Créach, A., 487
Cremesti, A.E., 937
Cross, R.F., 1147
Csábi, G., 1179
Csallany, A.S., 855, 1225
Cuevas, A.M., 143
Cunnane, S.C., 105
Curi, R., 31
Curtis, L., 899

D

Dallay, D., 561
Davidson, N.O., 1079
de Alaniz, J.T., 983
Decsi, T., 1179
de Hostos, E.L., 249
Dekker, M.H.A., 533
de la Torre, C., 633
Delorme, N., 1259
de Madariaga, M.A., 513
DeMichele, S.J., 975
Demigné, C., 437
Destaillats, F., 815, 1027
Dettner, K., 543
Deutsch, J., 693
Diaz, M., 627

Copyright © 2000 by AOCS Press

Di Benedetto, R., 45
Dickinson, L.C., 1289
Didi-Cohen, S., 881
Di Pasquale, M., 45
Djoussé, L., 827
Doi, H., 205
Domergue, F., 487
Dotson, W.D., 243
Dubès, J.-P., 919
Duchamp, C., 1099
Duchêne, S., 739
Dunshea, F.R., 1147
Duval, S., 131

E

Eckstein, J.A., 257
El btaouri, H., 1259
Ellison, R.C., 827
Emken, E.A., 131
Emonard, H., 1259
Engler, M.B., 1011
Engler, M.M., 1011
Entressangles, B., 561, 815
Erhardt, É., 1179
Erickson, K.L., 783, 1065
Esaka, M., 1359
Eulitz, K., 797
Evans, G., 1239
Evans, M., 899

F

Fariss, M.W., 171
Farkas, T., 1093
Fayolle, C., 453
Fischl, A.S., 937
Fisher, R.H., 1305
Fitó, M., 633
Fitzgerald, D.A., 967
Fliesler, S.J., 289
Fodor, E., 1093
Foster, K.A., 249
Fox, S.R., 23, 1205
Francescutti, V., 105
Frank, J., 427
Frémont, L., 991
Friend, J., 23, 1205
Frost, G., 769
Frøyland, L., 653
Fu, Z., 395
Fujii, Y., 1107
Fujikawa, Y., 1359
Fujimoto, Y., 279
Fukatsu, M., 461
Furr, H.C., 803
Fürstenberger, G., 701

G

Gachet, C., 453
Galan, X., 1017
Galanopoulou, D., 525
Gale, B., 777
Gallaher, D.D., 855, 1225
Gallasch, B.A.W., 953
Gapor, A., 171
Gaposchkin, D.P., 181
García, C., 1167
Garda, H.A., 1335
Gardner, H.W., 1055
Garg, M.L., 967
Gaskin, D.J.H., 709
Gavasso, S., 1269
Geeraert, L., 1117
Geigerman, C., 899
Genty, M., 91, 911
Geoffrion, H., 561
Georges, B., 1099
Germain, A.M., 143
Ghebremeskel, K., 567
Gibson, P.G., 967
Gibson, R., 383
Giddings, T.H., 1377
Gidlund, M., 55
Ginies, C., 911
Godzina, S.M., 249
Goldstone, A.P., 769
Gonzalez-Baró, M.R., 645
Gozzelino, M.T., 991
Green, T.J., 607
Grégoire, S., 91
Greiner, R., 863
Grimsgaard, S., 1185
Groscolas, R., 453
Gu, W., 249
Guasch, V., 143
Gudbjarnason, S., 601
Gutbier, G., 453
Guzmán, A., 1371

H

Hachey, D.L., 1325
Hajnal, J.V., 769
Hallgrimsson, J., 601
Hamberg, M., 353, 1205
Hamilton, J., 187, 863
Hara, Y., 1405
Harel, M., 1269
Hata, N., 1107
Havel, P.J., 783
Haye, B., 1259
Hazebroek, J., 471
Hazel, J.R., 596
Healy, D.A., 763
Heidt, M., 701
Heimer, Y.M., 881
Heinzen, H., 1033
Heras, H., 645
Herbert, R., 1269
Hernandez, F., 627
Hibino, H., 61
Hidiroglou, N., 409
Hildebrand, D.F., 471
Hill, E.M., 1195
Hirano, K.-I., 1079
Hollywood, R., 409
Holzem, G., 99
Hopia, A.I., 1215
Horn, W.F., 783
Hornebeck, W., 1259
Hornstra, G., 137
Hou, C.T., 1055
Howell, B.R., 745
Høy, C.-E., 83, 1073
Hsu, F.-F., 839
Huang, Y.-S., 975
Hui, D.Y., 833
Hunziker, P., 709
Hyodo, R., 279

I

Ichihara, K., 365
Igarashi, O., 71
Iijima, N., 1359
Ikeda, I., 1345
Ikeda, S., 163
Ikemoto, A., 1107
Imai, H., 233
Imai, M., 1411
Imaizumi, K., 1345
Innis, S.M., 607
Irribarra, V., 143
Ishizaki, H., 665
Itoh, K., 639
Itoh, T., 1155
Itoh, Y.H., 1155
Ivanova, A., 1371
Iwasaki, H., 373
Iwasaki, Y., 481

J

Jannin, B., 1397
Jensen, R.G., 1159
Johnson, B.H., 305
Johnson, T.A., 257
Jones, P.J.H., 1037
Juanéda, P., 91

K

Kalderon, B., 693
Kallio, H., 1001
Kamal-Eldin, A., 427
Kanazawa, K., 461
Kaneko, T., 961
Kaneshiro, E.S., 317
Kaplan, M.L., 1325
Kato, K., 1405
Kawakami, M., 205
Keelan, M., 833
Keim, N.L., 777, 783
Kelley, D.S., 777, 783, 1065
Kennedy, M.A., 257
Kerkhofs, A., 213
Khan, M., 1127
Khozin-Goldberg, I., 881
Kikugawa, K., 401
Kim, A., 567
Kim, H.-Y., 187, 863
Kim, S.-S., 855, 1225
Kishi, T., 1345
Kishino, T., 445
Kiso, Y., 71

Klein, E., 575
Klingler, K.R., 99
Kodaka, M., 673, 689
Konakahara, T., 673
Koo, J.-N., 567
Kosugi, Y., 461
Kramer, J.K.G., 797
Krauss, R.M. 621
Krieg, P., 701
Kritchevsky, D., 621
Krylov, A.S., 305
Ku, Y., 797
Kuebler, B., 899
Kuksis, A., 1001
Kurane, R., 1061
Kuruma, K., 639
Kurvinen, J.-P., 1001
Kusunose, E., 365
Kuwata, G., 1411

L

L'Abbé, M.R., 409
Lahdes, E., 1093
Lahtchev, K., 1371
Lammi-Keefe, C.J., 927
Lamuela-Raventós, R.M., 633
Lanza-Jacoby, S.P., 1079
Larijani, B., 1289
Latruffe, N., 1397
Lau, M.M.L., 1135
Leclere, L., 911
Lees, N.D., 247
Leighton, F., 143
Leng, J.J., 561
Leondaritis, G., 525
Leray, C., 453
Lessire, R., 487
Levrat, M.-A., 437
Lew, K.M., 481
Li, J., 1281
Li, S., 271
Li, Z., 1325
Liang, Y., 339
Lichtenstein, A.H., 1037
Lie Ken Jie, M.S.F., 1135
Lie, Ø., 653
Liebler, D.C., 1045
Liminga, M., 225
Lin, J.-T., 481
Linard, A., 991
Linares, A., 587
Lindsay, R.M., 1319
Liu, J.-W., 975
Liu, L., 197
Llobera, M., 1017
Lodge, J.K., 1087
Logue, J.A., 745
Loï, C., 911
Lopez, F., 627
Lovato, M.A., 249
Lund, E., 1269
Lutz, T., 1397
Lyall, K., 681
Lyubachevskaya, G., 1353

M

Ma, Z., 839
MacGibbon, A.K.H., 789
Mackey, B.E., 1065
Maehira, F., 503
Mäkinen, E.M., 1215
Malcom, G.T., 613
Mannaerts, G.P., 1117
Marks, F., 701
Marpeau, A.M., 1
Marra, C.A., 983
Marrugat, J., 633
Martin, J.B., 149
Martin, J.-C., 91
Martiny, L., 1259
Marty, Y., 1387
Masella, R., 45
Matsuda, S.P.T., 249
Matsui, J., 333
Matsumoto, S., 445
Matsunaga, I., 365
Matsunaga, T., 1061
Mattei, R., 45
Matthan, N.R., 1037
McCarthy, J., 769, 1313
McIntosh, M., 899
McIntyre, B.S., 171
McKeon, T.A., 481
Medh, R.D., 305
Medina, E.A., 783
Meijer, G.W., 621
Meister, R., 1099
Mensink, R.P., 137
Meyer, M.M., 249
Mignerot, C., 561
Miles, E.A., 763
Milla, P., 297
Miller, C.-Y., 289
Mimura, K., 373
Min, Y., 567
Minda, H., 1179
Mingeot-Leclercq, M.-P., 213
Mir, F., 513
Misawa, Y., 1107
Miyagi, I., 503
Miyahara, K., 665
Miyamoto, S., 1411
Miyatani, S., 233
Mizon, C., 143
Mizrahi, J., 1239
Modesti, D., 45
Molkentin, J., 815, 1027
Molnár, D., 1179
Molnár, S., 1179
Montine, T.J., 1249
Moon, H., 471
Mooney, B.D., 551
Moosavi, M., 1313
Mora, M., 513
Morand, C., 437
Moriceau, S., 437
Morisaki, M., 279
Morita, T., 665
Morizawa, K., 61
Morris, S., 383
Mossoba, M.M., 797
Moundras, C., 437
Moyna, P., 1033
Mu, H., 83
Mueller, R., 409
Muller, B.L., 709
Murakami, H., 333
Muralitharan, M., 1147
Murase, H., 1405
Murphy, E.J., 729, 891
Myers, R.H., 827

N

Nagao, A., 1411
Nagata, K., 401
Nakanishi, H., 461
Nakano, Y., 61
Nakayama, M., 1345
Nakayama, T., 233
Nam, J.-H., 567
Namboodiri, V.M.H., 495
Nantz, M.H., 721
Narce, M.M., 1011
Narushima, S., 639
Nechev, J.T., 1371
Neely, M.D., 1249
Nelson, G.J., 777, 783, 1065
Nelson, M.M., 551
Nes, W.D., 241
Newsholme, P., 763
Nichols, P.D., 551
Nicolas-Frances, V., 1397
Niedzinski, E.J., 721
Nini, L., 919
Nishiyama-Naruke, A., 31
Noda, N., 665
Noël, J.P., 911
Noho, A., 503
Nomura, K., 279

O

O'Connor, J., 77
O'Connor, M.J., 77
Ogawa, Y., 673, 689
Ohishi, M., 1107
Ohlmann, P., 453
Ohyama, K., 279
Okada, T., 673
Oku, H., 373
Okuno, H., 673, 689
Okuyama, H., 1107
Olafsson, S.O., 601
Oliw, E., 225
Olson, D.C., 721
Onaga, K., 373
Oommen, O.V., 757
Ostrowska, E., 1147

P

Palombo, J.D., 975

Pan, D.A., 77
Panousis, C., 1239
Parish, E.J., 241, 271
Parks, L.W., 243
Pasquier, E., 1
Patrick, C.B., 891
Patton, S., 1159
Payne, J.A., 681
Pédrono, F., 1
Peres, C.M., 31
Perez, D., 143
Phetteplace, H.W., 1079
Philipson, E.H., 927
Phleger, C.F., 551
Piersma, T., 533
Place, A.R., 1269
Plouffe, L., 409
Poccia, D.L., 1289
Poisson, J.-P.G., 1011
Pollero, R.J., 645
Poralla, K., 297
Porsgaard, T., 1073
Porter, J.R., 613
Prabhune, A.A., 23
Precht, D., 815, 1027
Procopio, J., 31
Province, M.A., 827
Prows, D.R., 729
Purdon, A.D., 693

Q

Quintão, E.C.R., 55

R

Raeini-Sarjaz, M., 1037
Ramanadham, S., 839
Ramírez, I., 1017
Rao, Z., 271
Rapoport, S.I., 693, 891
Ratledge, C., 23, 1205
Ratnayake, W.M.N., 409
Raulin, J., 123
Razdan, A., 427
Regner, J.L., 305
Remacle, C., 213
Rémésy, C., 437
Richards, M.J., 289
Rico-Sanz, J., 1313
Riemersma, R.A., 681, 1319
Rizzo, W.B., 1281
Roach, J.A.G., 797
Robert, M.Q., 1017
Robinson, N.P., 789
Rodríguez, S., 1033
Rogers, L., 155
Romano-Fontes, L.G., 31
Rosenberger, T.A., 891
Rouanet, J.-L., 1099
Roussel, D., 1099
Roy, P.K., 461
Rudolph, I.L., 1065
Russell, M.J., 305

S

Sadler, P.J., 1087
Saeed, N., 769, 1313
Sagristá, M.L., 513
Saito, S., 445
Salem, N., Jr., 863
Sandhir, R., 1127
San Martin, A., 143
Sarda, L., 919
Sarwar, G., 409
Satake, M., 579
Sato, M., 1345
Schaaf, O., 543
Schaeffer, A., 263
Schaller, H., 263
Schanck, A., 213
Schneider, C., 1259
Schroeder, F., 729
Sébédio, J.-L., 91, 911
Sedkova, N., 1079
Sen, N., 35
Serfass, R.E., 339
Shah, S.N., 689
She, L., 803
Shibahara, A., 233
Shimabukuro, A.F., 55
Shu-gui, C., 461
Siegenthaler, P.-A., 739
Siess, M.-H., 91
Simmer, K., 383
Simonis, M.M.G., 137
Sinclair, A.J., 395, 1001
Singh, I., 1127
Sinninghe Damsté, J.S., 533
Slusarenko, A., 709
Sonveaux, E., 213
Soudant, P., 1387
Spiteller, G., 953
Spitzer, A.R., 35
Sprecher, H., 871
Stefanov, K., 1371
Stiles, T., 729
Storlien, L.H., 77
Strobel, P., 143
Suarez, M.D., 587
Suda, T., 333
Sugai, A., 1155
Sugano, M., 1345
Sumimoto, T., 365
Suzuki, H., 567
Suzuki, M., 401
Svec, F., 613
Swift, L.L., 1249
Sylvester, P.W., 171

T

Tahara, S., 961
Takahashi, K., 279
Takahashi, Y., 579
Takeda, N., 163
Takeyama, H., 1061
Tam, P.S.Y., 71
Tamasawa, N., 333
Tanahara, A., 503
Tanaka, R., 665
Tanaka, Y., 61
Tanno, M., 445
Taylor, P.C., 1065
Tekpetey, F., 149
Tengblad, S., 427
Tepper, S.A., 621
Terao, J., 1411
Thery, G., 561
Thomas, E.L., 769, 1313
Thompson, E.B., 305
Thomson, A.B.R., 833
Tierney, M.C., 1305
Tijet, N., 709
Tirmenstein, M.A., 171
Tobias, V.E., 55
Tokitsu, Y., 373
Tomobe, Y.I., 61
Tomohiro, T., 673, 689
Török, K., 1179
Torrents, J., 633
Torstensen, B.E., 653
Tove, S.R., 243
Traber, M.G., 1087
Trahanovsky, W.S., 339
Tsuchida, M., 61
Tulkens, P.M., 213
Tummon, I., 149
Turk, J., 839
Twibell, R.G., 155

U

Uchida, K., 639
Uchiyama, S., 1359
Uda, I., 1155
Ueda, A., 365
Umeda-Sawada, R., 71
Urbina, J.A., 627

V

Van Bambeke, F., 213
Van der Hoeven, G., 1117
Van Loan, M.D., 777
Van Veldhoven, P.P., 1117
Varghese, S., 757
Vendrame, C.M.V., 55
Vermunt, S.H.F., 137
Vessby, B., 427
Vila, J., 633
Viola, F., 297
Vogel, S., 701
Vulfson, E.N., 709

W

Wadsworth, S., 35
Wallace, F.A., 763
Ward, L., 205
Wäspi, U., 709

Watanabe, K., 1061
Watkins, B.A., 155
Watson, L., 149
Weaver, C.A., 1377
Weber, N., 575
Weete, J.D., 241
Weisleder, D., 1055
White, W.S., 339
Whitehead, I.M., 709
Wiebe, C., 99
Wielckens, K., 99
Wijendran, V., 927
Wild, G., 833
Williams, J.R., 325
Wilson, R., 681
Wilson, W.K., 242, 249
Wohltmann, M., 839
Wolff, R.L., 1, 815, 1027
Wood, L.G., 967
Wu, B.J., 77
Wyder, M.A., 317

Y

Yagi, N., 673
Yaguchi, T., 71
Yamada, A., 1061
Yamada, H., 445
Yamada, J., 279
Yamamoto, K., 233
Yamashita, K., 163
Yamauchi, R., 1405
Yao, L., 339, 803
Yarasheski, K., 839
Yasujima, M., 333
Yazawa, K., 1061
Yeh, Y.-Y., 197
Yin, F.Q., 871
Yoshida, R., 401
Yu, H.Z., 881
Yu, R., 1061
Yurawecz, M.P., 797

Z

Zaha, F., 503
Zambell, K.L., 777
Zecevic, J., 1305
Zeller, S., 1377
Zoeller, R.A., 181
Zuckerman, S.H., 1239

Subject Index

A

ABSORPTION
  comparison of lycopene and astaxanthin, 803
  of
    atherogenic fat by rabbits, 621
    tocopherols by rats, 1073
ACID AND NEUTRAL CHOLESTERYL ESTER HYDROLASES
  effects of passive smoking, 503
ACID HYDROLYSIS
  analysis of in guinea pig brain, 1001
ACQUIRED IMMUNE DEFICIENCY SYNDROME
  and *Pneumocystis carinii* pneumonia, 317
Actiniogeton sp.
  structure of phosphoethanolamines of, 665
ACYL MIGRATION
  in model chylomicra, 1353
ACYL THIOESTERS
  simultaneous derivatization of acyl and *S*-alkyl moieties of, 575
ACYLCARNITINE
  evaluation of brain long-chain, 693
ACYL-CoA
  pool concentration of, 693
ACYL-CoA-DEPENDENT Δ8 DESATURASE
  in rat liver and testes, 871
ACYL-CoA ELONGASE
  condensing enzyme determines the specificity of, 487
ACYLKINASES
  and retroviruses, 123
ACYLTRANSFERASES
  and retroviruses, 123
ADAPTATION
  of mice intestines to respond to variation in dietary lipids is genetically determined, 833
ADIPOSE TISSUE
  fatty acid analysis of, 681
  lipid composition of in young children, 77
Agabus affinis
  polyunsaturated monoglycerides in, 543
AGING
  effects of dehydroepiandrosterone on, 325
Ajuga reptans var. *atropurpurea*
  and biosynthesis of sterols and ecdysteroids, 279
ALDEHYDE
  conversion of fatty acid hydroperoxides to, 709
ALLENE OXIDE SYNTHASE
  activities in tissue preparation, 353
  values of, 709
ALLENE SYSTEM
  of methyl 12-keto-9,10-octadecadienoate, 1135
ALZHEIMER'S DISEASE
  fatty acid analysis of blood plasma of patients with, 1305
  risk of, 1249
β-AMYRIN
  cyclize with lupeol synthase to the dammarenyl cation, 249
Anabas testudineus, CLIMBING PERCH
  lipid metabolism in, 757
ANTIMYCOTICS
  drugs targeted against ergosterol or its biosynthesis, 317
ANTIOXIDANT
  as defenses in asthmatics, 967
  enzyme activities in *Anabas testudineus*, 757
  inhibits peroxidation of membrane phospholipids by trapping peroxyl radicals, 1405
  study of action of on lipid hydroperoxide decomposition, 1215
  to induce vascular relaxation, 143
ANTIRETROVIRAL DRUGS
  and human immunodeficiency virus, 123
APO E POLYMORPHISM
  and automated determination of apolipoprotein E2, E3, and E4 isoforms, 99
APOLIPOPROTEIN B
  hepatic production of, 1079
APOLIPOPROTEIN E
  and smoking, 827
APOPTOSIS
  induced in normal mouse mammary epithelial cells, 171
  inducing of, 899
  oxysterol-induced, 305
  T-cell susceptibility to, 123
APPETITE
  effects of conjugated linoleic acid supplementation on, 783
Arabidopsis
  leaf glucosylceramides of, 233
ARACHIDONIC ACID
  biosynthesis of 3*R*-hydroxy-5*Z*,8*Z*,11*Z*,14*Z*-eicosatetraenoic acid, 1205
  effects
    of DHA and n-6 fatty acids on, 71
    on
      fatty acid composition of CT-26 cells, 181
      growth and survival of white bass larvae, 1269
  in
    neutrophil phospholipids, 763
    plasma lipid classes in obese children, 1179
    rat gastric mucosa, 601
    red cells of Korean women, 567
    Zucker diabetic fatty rats, 839
  intravenously injected in hearts of awake rats, 891
  maternal gestational diabetes mellitus impairs status of in fetus, 927
  metabolized by sewage fungus, 23
ARCHAEA
  membrane lipid structures of, 1155
ARGENTATION
  thin-layer chromatography of New Zealand bovine milk fat, 789
  thin-layer chromatography technique, 681
AROMATASE
  estrogen synthase enzyme system, 271
Artemia
  diet fed to larval Dover sole, 745
  in diet of white bass larvae, 1269
ASCORBYL PALMITATE
  effects of, 1215
ASPARTYL PROTEASE
  and influence on human immunodeficiency virus activity, 123
Aspergillus niger
  Purification and biochemical characterization of novel thermostable lipase from, 495
ASTAXANTHIN
  comparison of absorption with lycopene, 803
ASTHENOZOOSPERMIC MALES
  effects of docosahexaenoic acid supplementation, 149
ASTHMA
  and the role of oxidative stress in the pathophysiology of, 967
ATHEROSCLEROSIS

severity in rabbits fed synthetic fats, 621
ATP SYNTHESIS
in livers of ducklings, 1099
AUTOMATION
and rapid determination of apolipoprotein E2, E3, and E4 *isoforms*, 99
AUTOXIDATION
of methyl linoleate, 947
AZASQUALENES
as inhibitors of squalene-hopene cyclase, 297

B

Bacillus sp.
lipid composition of, 1371
BACTEREMIA
Escherichia coli induced, 1079
BACTERIA
hydrocarbon-producing, 1371
BB RATS
spontaneously diabetic BioBreeding/Edinburgh rats, 1319
BILE
tocopherol secretion into, 163
BILE ACIDS
changes in due to cholesterol-lowering effects of guar gum, 437
BIOAVAILABILITY
and absorption of carotenoids, 803
BIOCHEMICAL COMPOSITION
of lipids and fatty acids in shrimp embryo development, 645
BIOPHENOLS
and protection of LDL oxidizability in rabbits, 45
BIOSYNTHESIS
of
galactolipids in *Porphyridium*, 881
polyunsaturated fatty acids in rat liver and testes, 871
sterols and ecdysteroids in *Ajuga* hairy roots, 279
BIOTRANSFORMATION
of linoleic acid into variety of oxylipins by *Clavibacter* sp. ALA2, 1055
BIRD
phospholipid composition and mitochondrial function in skeletal muscle of, 1099
BIS-ALLYLIC HYDROPEROXIDE
identification of, 947
BLOOD LIPIDS
in the king penguin, 453
BODY COMPOSITION
effects of conjugated linoleic acid supplementation in humans, 777
BORAGE OIL
in diets of rats, 975
BORIC ACID THIN-LAYER CHROMATOGRAPHY
used for analysis of positional distribution of fatty acids, 579
BOVINE
oxidized cerebral spinal fluid lipoprotein in the, 1249
BRAIN
evaluation of long-chain acylcarnitines in, 693
increasing the delivery of DHA to, 383
of guinea pig, 1001
BRANCHED FATTY ACIDS
in preen waxes, 533
BRANCHED FATTY ALCOHOLS
in preen waxes, 533
Brassica napus
partial purification of the entire 18:1-CoA elongase from seeds of, 487
BREAST FEEDING
comparison of DHA levels in formula-fed infants, 77
BUTYLATED HYDROXYTOLUENE
effects on tocopherol, cholesterol, and fatty acids in rats, 427

C

CALCIUM
deficiency, in rats, 983
in red sea bream, 1359
Calidris alba
comparison of preen waxes, 533
Calidris canutus
molecular analysis of intact preen waxes, 533
CANOLA OIL
and effect on life span of stroke-prone spontaneously hypertensive rats, 409
in
diets of rats, 975
formula of neonatal pigs, 607
CAPELIN OIL
effects on lipid metabolism and tissue composition in Atlantic salmon, 653
CARBON TETRACHLORIDE
induces lipid peroxidation *in vivo*, 855
CARBONYL COMPOUNDS
response of to factors that stimulate lipid peroxidation *in vivo*, 855
CARCASS LIPIDS
of guinea pigs, 395
CARCINOGENESIS
effects of dehydroepiandrosterone on, 325
L-CARNITINE
effects on chemical composition of plasma lipoproteins, 627
CAROTENOID
effect of different oils on the absorption of, 803
metabolism of in humans, 339
CASTOR OIL
biosynthesis of, 481
CATALYTIC HYDROGENATION
of lutein, 339
CATION EFFECT
in inducing aggregation and fusion of liposomes, 513
CATIONIC LIPID
as transfection agents, 721
CD4-POSITIVE CELLS
infiltration into the ears of mice, 61
CD8-POSITIVE CELLS
infiltration into the corium in ear tissue of mice, 61
CECAL BILE ACIDS
composition of *in ex-germfree mice, 639*
γ-CEHC
major metabolite of γ-tocopherol, 163
CELL CYCLE
of 3T3-L1 preadipocytes, 899
CELL MEMBRANES
and lipopeptides with peptide ligands, 673
CELL SIGNALING
role of inositol phospholipids in, 525
CERAMIDE
current methods for the identification and quantitation of, 937
dihydroceramide converted into, 1117
in human vernix caseosa, 373
signaling pathway of, 1259
CEREBRAL CORTEX
fatty acid compositions of, 383
CEREBRAL SPINAL FLUID
lipoproteins disrupt neuronal microtubules, 1249
CEREBRONIC ACID
peroxisomal oxidation of, 1127
CHAIN LENGTH

effects of medium-chain fatty acids on intestinal absorption of long-chain fatty acids, 83
CHEESE FAT
study of from cow, goat, and ewe, 1027
CHEMILUMINESCENCE
analysis by, 1405
CHEMOTAXIS
neutrophil function attenuated with dietary fish oil, 763
CHICK
aortic smooth muscle cells of, 587
CHOLESTEROL
and response of plasma concentration to changes in dietary lipids, 833
effects of dietary phenolic compounds on, 427
in cholesterol-to-phospholipid ratio in L-cell fibroblasts, 729
lowering effects of guar gum, 437
mechanisms of incorporation into retroviral envelopes, 123
pattern of association between individual fatty acids and, 1185
ratio to phospholipids in king penguins, 453
response of plasma lipids to dietary, 991
synthesis of in the vertebrate retina, 289
CHOLESTEROL PRECURSORS
levels of in plasma, 1037
CHOLESTEROL SYNTHESIS
inhibition by organosulfur compounds derived from garlic, 197
measurement of in hypercholesterolemic women, 1037
CHOLIC ACID
gastroprotection of DNA with synthetic analog of, 721
CHYLOMICRONS
chemical composition of in rats, 1345
kinetics of 2-monoacylglycerol acyl migration in model, 1353
resembling triglyceride-rich emulsion (EM) particles, 55
Clavibacter sp. ALA2
in biotransformation, 1055
CNIDARIA
analysis of lipids, 551
COCONUT OIL
compared to menhaden oil in diet of rats, 595
COELENTERATA
phylum containing sea anemone, 665
COLD ACCLIMATION
effect on phospholipid composition and mitochondrial function *in duckling skeletal muscle, 1099*
COLEOPTERA
and dytiscid beetles, 543
CONDITIONAL LETHAL MUTANTS
of target genes, 257
CONFOCAL MICROSCOPY
examination of cells incubated with liposomes loaded with HPTS or HPTS-DPX, 213
CONFORMATIONAL CHANGE
in tubulin, 205
CONIFEROPHYTINAE
subdivision of living gymnosperms, 1
CONJUGATED LINOLEIC ACID
and immune status in young healthy women, 1065
attenuates triglyceride content, 899
effects
of supplementation in humans, 783
on hepatic and muscle lipids in hybrid striped bass, 155
in New Zealand bovine milk fat, 789
isomers
in liver, skeletal muscle, and heart of male weanling Wistar rats, 91
of, 797
methylated, 1147
methyl esters, 131
11-*trans*-octadecenoate converted to, 131
supplementation in humans, 777
CONTACT HYPERSENSITIVITY REACTION
effect on inflammatory response in ears of mice, 61
COW
cheese fats of, 1027
CROSS-SECTIONAL STUDIES
relationship of plasma fatty acids with serum nonfasting triglyceride and total cholesterol concentrations, 1185
CRUSTACEAN EGG
lipid and fatty acid composition and energy partitioning in, 645
CTENOPHORA
analysis of lipids, 551
CURCUMIN
effects on tocopherol, cholesterol, and fatty acids in rats, 427
CYANOBACTERIUM
marine, 1061
CYASTERONE
ecdysteroid constituent of Ajuga hairy roots, 279
1,2-CYCLIC ACETAL TYPE *sn*-GLYCERO-3-PHOSPHO-ETHANOLAMINE
evidence for presence of in the sea anemone, 665
CYCLOARTENOL
carbocyclic intermediate, 249
CYP74B5
sequences of, 709
CYTOCHROME P450
fatty acid-specific, regiospecific, and stereospecific hydroxylation by, 365
reactions catalyzed by enzyme, 709

D

DECOMPOSITION
of methyl linoleate hydroperoxides, 1215
DEGREE OF UNSATURATION
of fatty acids in rats after partial hepatectomy, 445
DEHYDROEPIANDROSTERONE
and its effects on carcinogenesis, obesity, the immune system, and aging, 325
DELAYED TYPE HYPERSENSITIVITY
observation in ear tissue of mice, 61
DELIPIDATED HIGH DENSITY LIPOPROTEIN
influence on the uptake by macrophages of zymosan, 55
DEMENTIA
fatty acid analysis of blood plasma of patients with, 1305
DERIVATIZATION
of acyl and S-alkyl moieties of acyl thioesters, 575
DESATURASE
activities of fatty acids, 983
activity determined in hepatic microsomes, 1011
Δ5-DESATURASE
activity inhibited in obese children with metabolic cardiovascular syndrome, 1179
Δ6-DESATURASE
activity
stimulated in obese children with metabolic cardiovascular syndrome, 1179
vs. product-precursor ratios, 1319
DESATURATION
of
linoleic acid, 181
α-linolenic acid, 137
DESMOSTEROL
as substitute for cholesterol in the retina, 289
levels of in the plasma cholesterol precursor, 1037
DEUTERIUM
labeling of conjugated linoleic acid with atoms of, 131
uptake of, 1037

DEVELOPMENT
of shrimp *Macrobrachium borellii* embryo, 645
DHA DISTRIBUTION
in guinea pigs, 395
DIABETES
onset of in B/B rats, 421
urinary lipophilic aldehydes in, 1225
DIABETES MELLITUS
in Zucker diabetic fatty rats, 839
plasma oxysterols and tocopherol in patients with, 333
DIET
in inbred strains of mice, 833
of
French women, 561
larval and juvenile Dover sole, 745
DIETARY CHOLESTEROL
changes induced by, 1335
DIETARY FAT
in ducklings, 1099
influence of long-term feeding in rats, 601
DIETARY FATTY ACIDS
and effect on life span of stroke-prone spontaneously hypertensive rats, 409
digestibility of in Atlantic salmon, 653
in spontaneously diabetic B/B rats, 421
DIETARY FATTY ACID SUPPLEMENTATION
effect on neutrophil lipid composition and function, 763
DIETARY OILS
in long-term feeding of climbing perch, 757
DIFFERENTIAL DISPLAY
demonstration of a pattern of altered gene expression, 243
DIFFERENTIAL GENE EXPRESSION
demonstration of a pattern between cultures grown in the presence and absence of sitosterol, 243
DIFFERENTIATION
influences of conjugated linoleic acid isomers during, 899
DIGESTIBILITY
of dietary fatty acids measured in Atlantic salmon, 653
DIHOMO-γ-LINOLENIC ACID
in obese children, 1179
DIMETHYL DISULFIDE ADDUCT
GC–MS analysis of, 233
9,12-DIOXO-10-DODECENOIC ACID
9,12,13-trihydroxy-10-octadecenoic acid cleaved oxidatively to, 953
Dipodascopsis uninucleata
arachidonic acid oxidation in, 1205
DOCOSAHEXAENOATE
and neural and visual development in infant brains, 105
effects on growth and survival of white bass larvae, 1269
DOCOSAHEXAENOIC ACID
biosynthetic pathway for, 1325
derived from essential fatty acid precursors, 1107
differences in the brains of Alzheimer's patients, 1305
effect on sperm motility, 149
erythrocyte fatty acid composition as index of in skeletal muscle of young children, 77
formed by alternate desaturation and elongation of α-linolenic acid, 137
immunomodulatory effects, 61
in
diet of breast-fed rat pups, 389
fish oil to attenuate neutrophil functions, 763
juvenile Dover sole, 745
marine oils inhibits growth of CT-26 cells, 181
maternal gestational diabetes mellitus impairs status of in fetus, 927
neuronal membranes, 187
neuronal tissue, 863
new marine oil administered to rats, 71
red cells of Koren women, 567
regenerating liver of rats, 445
Schizochytrium sp., 1377
utilization of from intravenous egg yolk phospholipid, 383
DOCOSAPENTAENOIC ACID
in
new marine oil administered to rats, 71
Schizochytrium sp., 1377
DOUBLE-BOND POSITION
determination in monoenoic 2-hydroxy fatty acids of glucosylceramides, 233
DPA-DHA OIL
effects of in rats, 71
DYTISCIDAE
gland systems of, 543

E

ECDYSTEROID
biosynthesis of in Ajuga hairy roots, 279
EICOSANOID
biosynthesis of, 1195
effects on juvenile Dover sole, 745
EICOSAPENTAENOIC ACID
absence of, 61
ameliorate effects of eicosanoids in juvenile Dover sole, 745
formed by alternate desaturation and elongation of α-linolenic acid, 137
in
fish oil to attenuate neutrophil functions, 763
marine oils inhibits growth of CT-26 cells, 181
rats fed new marine oil, 71
study of biosynthesis of in red microalga, 881
synthesis gene cluster from an EPA-producing bacterium, 1061
ELECTROSPRAY IONIZATION
analysis, 1001
analysis of lipoxygenase products in bovine corneal epithelium, 225
ELECTROSPRAY IONIZATION TANDEM MASS SPECTROMETRY
used to measure concentration and distribution of long-chain acylcarnitines in rat brain, 693
ELONGASE
activity of, 1281
ELONGATION
of
α-linolenic acid, 137
20-carbon fatty acids, 181
trans 20:5 isomers, 911
ENAMINONES
novel lipidic, 1135
ENDOCYTOSIS
of pH-sensitive liposomes, 213
ENDOPLASMIC RETICULUM
microsomes, 1117
ENDOTHELIAL CELLS
incorporation and metabolism of *trans* 20:5 in, 911
ENDOTHELIAL FUNCTION
effect of regular high-fat diet and moderate red wine consumption on, 143
ENERGY EXPENDITURE
effects of conjugated linoleic acid supplementation in humans, 777
ENERGY USE
during shrimp embryogenesis, 645
EPIDERMAL ISOZYMES
in mouse tissues, 701
9,10-EPOXY-12-HYDROXY-DODECANOIC ACID
synthesis of, 953
EPOXYQUINONES
identification of reaction products of, 1045

ERG25
C-4 methyl oxidase gene, 257
ERGOSTEROL
biosynthetic pathway, 257
lacking in *Pneumocystis carinii*, 317
ERUCIC ACID
in canola oil used in formula of piglets, 607
industrial applications of, 487
ERYTHROCYTE
effect of gestational diabetes mellitus, 927
fatty acid composition of, 77
lipid composition of in subantarctic seabird, the king penguin, 453
ESSENTIAL FATTY ACID METABOLISM
in spontaneously diabetic BioBreeding/Edinburgh rats, 1319
ESTERIFICATION
characteristic of catalytic medium in, 1167
of polyunsaturated fatty acids, 461
ESTROGEN
importance in mammalian metabolism and reproductive processes, 271
ETHANOL
chronic exposure in C-6 glioma cells, 187
ETHANOLAMINE
glycerophospholipid in the rat brain, 1107
ETHER LIPID
membrane lipid structure of Archaea, 1155
EUKARYOTIC MOLECULAR SPECIES
monogalactosyldiacylglycerol, 881
EVAPORATIVE LIGHT-SCATTERING DETECTOR
and ceramides, 937
EWE
cheese fats of, 1027
EXERCISE
effects of, 1313
EX-GERMFREE MICE
and composition of cecal bile acids in, 639
EXTINCTION COEFFICIENT
and New Zealand bovine milk fat, 789

F

FAT
study of in rats, 975
FATTY ACID(S)
binding proteins of, 729
biotransformation by sewage fungus, 23
branched-chain present in vernix caseosa, 373
chain length of, 1185
changes in degree of unsaturation of, 445
composition
in shrimp embryogenesis, 645
of *Pinus* spp. seed, 1
during cerebral ischemia, 693
effects of
dietary phenolic compounds on, 427
environmental temperature on composition of, 1093
from
rapeseed, soybean and sunflower oil, 1073
Sphingomonas paucimobilis, 365
in
guava fruit, 709
lipid composition of *Bacillus* sp., 1371
marine cyanobacterium, 1061
muscle tissues and liver of hybrid striped bass, 155
patterns of phospholipids, 453
thylakoid membrane, 739
in diet(s) of
breast-fed rat pups, 389
spontaneously diabetic B/B rats, 421
young healthy women, 1065
metabolism of in rats, 975
mice strain differences in the *in vitro* (I) uptake of, 833
of human milk, 1159
profile of in *Tetrahymena pyriformis*, 525
transport across lipid bilayer planar membranes, 31
n-3 FATTY ACID
and protective role in cardiovascular disease, 143
deficiency, in guinea pigs, 1001
fundamental components of structural membrane lipids in the central nervous system, 1107
in diets of rats, 601
in spontaneously hypertensive rats, 1011
FATTY ACID HYDROPEROXIDE
bis-allylic, 947
FATTY ACID METHYL ESTERS
derivatized products of acyl thioesters, 575
require lower temperatures to change volatility, 1167
FERRIC ION
effects to DNA of human diploid fibroblasts, 961
FERULIC ACID
effects on tocopherol, cholesterol, and fatty acids in rats, 427
FETUS
erythrocyte phospholipid polyunsaturated fatty acids in, 927
piglet, 1325
FEULGEN'S ACETALPHOSPHATIDE
in the sea anemone, 665
FISH
Anabas testudineus, climbing perch, 757
Solea solea L., Dover sole, 745
FISH NUTRITION
analysis of in hybrid striped bass, 155
FISH OIL
compared to coconut oil in diet of rats, 595
effect(s) of
on neutrophil lipid composition and function, 763
supplementation on rat organs, 401
in diet of rats decreases arachidonic acid in gastric mucosa, 601
partially hydrogenated, 681
FISH OIL TRIACYLGLYCEROLS
positional distribution of fatty acids, 579
FLOW CYTOMETRY
confirmation of binding of peptide ligands, 673
investigation by, 1239
FLUORESCENCE SPECTRUM
measurement in tubulin, 205
FLUORESCENT
bezafibrate derivative, 1397
phosphatidylcholine analog, 1387
FOLATE
effect of wine on plasma levels of, 143
FOOD SURVEY
of lipids in French processed foods, 815
FOURIER TRANSFORM INFRARED SPECTROSCOPY
analysis of membrane physical properties, 595
FRAGMENTATION MECHANISM
of hydroperoxyeicosatetraenoic acid (HPETE), 225
FREE FATTY ACIDS
high levels in obesity, 613
FREEZE-FRACTURE
photomicrographs of *Schizochytrium* sp. oil bodies, 1377
FUNGI
biosynthesis of oxylipins of, 23
Pneumocystis carinii pneumonia demonstrated by molecular genetics data to be, 317

9-[2-FURYL]-OCTANOIC ACID
synthesis of, 953
FUSION
of pH-sensitive liposomes, 213

G

Gammarus
marine amphipod crustacean from Baltic Sea, 1093
GARLIC
inhibition of cholesterol biosynthesis, 197
GAS CHROMATOGRAPHY
analysis of acyl thioesters, 575
GAS CHROMATOGRAPHY–COMBUSTION-ISOTOPE RATIO MASS SPECTROMETER
analysis of total lipids from plasma and CO_2 in breath, 137
GAS CHROMATOGRAPHY–MASS SPECTROMETRY
determining double-bond positions in monoenoic 2-hydroxy fatty acids of glucosylceramides, 233
use in study of antioxidant reactions, 1045
GASTRIC MUCOSA
in rats, 601
GASTROPROTECTION
of DNA with synthetic cholic acid analog, 721
GC-EIMS
identification of trace 21:0 and 20:2 fatty acids eluting with conjugated linoleic acid isomers, 797
GC-FID
accepted method for the determination of fatty acid composition of natural products and standard compounds, 797
GC/MS/MS ANALYSIS
of
intact preen waxes of *Calidris canutus,* 533
polyunsaturated monoglycerides in *Agabus affinis,* 543
GENE EXPRESSION
of C-4 methyl oxidase gene (ERG25), 257
GENE THERAPY
and gastroprotection of DNA, 721
GENE TRANSCRIPTION
determination of the level of inhibition of, 421
GESTATIONAL DIABETES MELLITUS
fetal erythrocyte phospholipid polyunsaturated fatty acids altered in pregnancy complicated with, 927
GILLS
of red sea bream, 1359
C-6 GLIOMA CELLS
chronic ethanol exposure in, 187
GLUCAGON
signal transduction pathway of, 595
GLUCOSE
comparison of uptake in ileum of strains of inbred mice, 833
control of in gestational diabetes mellitus, 927
effects of conjugated linoleic acid supplementation in humans on, 783
GLUCOSE/GLUCOSE OXIDASE
and effects of passive smoking, 503
GLUCOSE-6-PHOSPHATE DEHYDROGENASE
inhibitory effect of dehydroepiandrosterone on, 325
GLUCOSYLCERAMIDE
determining double-bond positions in monoenoic 2-hydroxy fatty acids of, 233
GLUTATHIONE PEROXIDASE
measures of, 967
GLYCEROPHOSPHOLIPID
effects of low α-linolenic acid diet on, 1001
GOAT
cheese fats of, 1027
GREEN NOTES
used in flavors to impart fresh green character, 709
GROUP I PHOSPHOLIPASE A_2
characterization and molecular cloning of, 1359
GROWTH
comparison of in rats, 975
GTPase ACTIVITY
of tubulin, 205
GUAR GUM
cholesterol lowering effects of, 437
GUINEA PIG
effect of low α-linolenic acid diet on glycerophospholipid molecular species in brain of, 1001
GYMNOSPERMS
divided into two classes, Ginkgoatae and Pinatae, 1

H

HAIRY ROOTS
of *Ajuga reptans* var. *atropurpurea,* 279
HEART
of awake rats, 891
HEART TRIGLYCERIDE
concentration and composition in piglets, 607
HEATED OILS
absorption of tocopherols and fatty acids from, 1073
HEPARIN
results of addition of, 1017
HEPATOCYTE(S)
effect of organosulfur compounds derived from garlic on rat, 197
secrete apolipoprotein B, 1079
11-HETE
in mussel ovaries, 1195
12-HETE
in mussel ovaries, 1195
cis-HEXADECENOIC ISOMERS
study of in cow, goat, and ewe cheese fats, 1027
HIGH DENSITY LIPOPROTEIN (HDL)
influence on the uptake by macrophages of zymosan, 55
low plasma concentration of, 991
HIGH-FAT DIET
effect on endothelial function in humans, 143
HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY
analysis of addition products of α-tocopherol by, 1405
and ceramides, 937
lipids of *Perkinsus marinus* analyzed by, 1387
separating product fatty acids into fractions, 1055
used in analysis of New Zealand bovine milk fat, 789
HIGH PRESSURE FREEZE SUBSTITUTION
preparation by, 1377
8-HODE
enantiomeric composition of, 23
HMG-CoA
conversion to mevalonate, 587
HOMOCYSTEINE
in plants measured by high performance liquid chromatography with fluorometric detection, 143
HOPANOID BIOSYNTHESIS INHIBITION
of bacterial membranes, 297
HUMAN(S)
α-linolenic acid metabolism in, 137
biosynthesis of conjugated linoleic acid in, 131
conjugated linoleic acid supplementation in, 783
effects of conjugated linoleic acid supplementation in, 777
immune status of young healthy female, 1065

lutein in retina of, 339
oxidized cerebral spinal fluid lipoproteins, 1249
patients with Alzheimer's disease, other types of dementia and cognitive impairment, 1305
HUMAN ADIPOSE TISSUE
of French women, 561
HUMAN DIPLOID FIBROBLASTS
treatment of with linoleic acid hydroperoxide and ferric ion, 961
HUMAN IMMUNODEFICIENCY VIRUS
and influences on viral activity, 123
HUMAN INTESTINAL BACTERIA
inoculated orally into germfree mice, 639
HUMAN LEUKEMIC CELLS
oxysterol-induced apoptosis of, 305
HUMAN MILK
triacylglycerols, mean melting points of, 1159
HYBRID STRIPED BASS
effects of dietary conjugated linoleic acids on hepatic and muscle lipids in, 155
HYDROCARBONS
in bacteria, 1371
HYDROGENATED FAT
in diet of hypercholesterolemic women, 1037
HYDROPEROXIDE LYASE
activity of in guava fruit, 709
HYDROPEROXIDE(S)
analysis by dehydration, 225
in tissue preparations of *Solanum tuberosum,* 353
HYDROPHOBIC INTERACTION
as mechanism of tubulin modification, 205
3-HYDROXYACYL-CoA DEHYDRATASE
purification process of and characterization of, 487
20-HYDROXYECDYSONE
ecdysteroid constituent of *Ajuga* hairy roots, 279
3*R*-HYDROXY-5Z,8Z,11Z,14Z-EICOSATETRAENOIC ACID
evidence for the mitochondrial biosynthesis of, 1205
3-HYDROXY-3-METHYLGLUTARYL-CoA REDUCTASE
enzyme to catalyze conversion of HMG-CoA to mevalonate, 587
8-HYDROXY-OCTADECADIENOIC ACID
product of metabolization by sewage fungus, 23
9-HYDROXY-12-OXO-10-DODECENOIC ACID
preparation of, 953
HYDROXYLASE
in characterization of rat dihydroceramide desaturase, 1117
α-HYDROXYLATION
substrate structure from *Sphingomonas paucimobilis* required for, 365
HYPERCHOLESTEROLEMIA
and apolipoprotein E in lipoprotein metabolism, 99
plasma oxysterols and tocopherol in patients with, 333
HYPERLIPIDEMIA
of infection and sepsis in male Lewis rats, 1079
HYPERTENSION
development of in spontaneously hypertensive rats, 1011

I

IMMOBILIZED LIPASE
from *Rhizomucor miehei,* 461
IMMUNE RESPONSE
in ear tissue of mice, 61
indices of, 1065
IMMUNITY
study of after administration of influenza vaccine in young healthy women, 1065
IMMUNOELECTRON MICROSCOPY
confirming peptide ligands in aqueous phase, 673
in situ SYNTHESIS
simultaneous lipid extraction and derivatization, 1167
INCORPORATION
of
trans 20:5 in endothelial cells, 911
polyunsaturated fatty acids in CT-26 cells, 181
INDIRECT CALORIMETRY
and conjugated linoleic acid supplementation in humans, 777
INFANT(S)
breast-fed and docosahexaenoate accumulation, 105
canola oil not approved for use in formula of, 607
effects of
breast feeding vs. formula-feeding in, 77
type of feeding, 77
formula-fed and docosahexaenoate accumulation, 105
INHIBITORS
potential in control of breast cancer, 271
INOSITOL PHOSPHATES
lower phosphorylated forms of derived from phytic acid hydrolysis, 1411
INOSITOL PHOSPHOLIPIDS
in *Tetrahymena,* 525
INSULIN
effects of conjugated linoleic acid supplementation in humans on, 783
INSULIN RESISTANCE
in the obese Zucker rat, 613
INTEGRINS
β2, 1239
INTERACTION
between smoking and apolipoprotein E, 827
INTERFACIAL ACTIVITY
of *Penicillium cyclopium* lipase, 919
INTESTINAL ABSORPTION
of
bile acids, 437
structured triacylglycerols, 83
INTESTINAL FATTY ACID-BINDING PROTEIN
in L-cell fibroblasts, 729
INTRAMYOCELLULAR LIPIDS
study of, 1313
INTRAVENOUS FAT EMULSION
administered to human premature infants during parenteral nutrition, 383
ION TRAP MASS ANALYZER
of lipoxygenase products in bovine corneal epithelium, 225
IRON ION
chelation of by phytic acid hydrolysis products, 1411
ISOMERIZATION
of methyl linoleate hydroperoxides, 1215
spontaneous, 1353
ISOPROSTANES
related to disease severity in mild asthma, 967
ISOTOPE RATIO MASS SPECTROMETRY
in analysis of lutein dose, 339

K

3-KETOACYL-CoA ELONGASE
threefold increased activity by, 487
KINETIC
constants of 9*c*,11*t*- and 10*t*,12*c*-CLA isomers on CPT-I and acyl CoA oxidase, 91
properties of *Penicillium cyclopium* lipases, 919
KOREAN WOMEN
plasma and red cell fatty acids of, 567

L

LAG-TIME
role of O_2 and copper concentrations in determination of, 1087
LAMELLAR BODIES
phosphatidylcholine and phosphatidylglycerol in, 35
LANOSTEROL
in fungi and mammals, 249
levels of in the plasma cholesterol precursor, 1037
LATERAL ASYMMETRY
in thylakoid membrane, 739
LATHOSTEROL
levels of in the plasma cholesterol precursor, 1037
Lens culinaris MEDIK.
new fatty acid metabolite derived from, 953
LENTIL SEED FLOUR
synthesis of new fatty acid metabolite derived from, 953
LEPTIN
effects of conjugated linoleic acid supplementation on circulating concentrations of, 783
Leptomitus lacteus
and production of oxygenated fatty acids, 23
LIFE SPAN
of stroke-prone spontaneously hypertensive rats, 409
Limosa lapponica
comparison of preen waxes, 533
LINOLEIC ACID
autoxidation of, 947
biotransformation products of, 1055
effects on fatty acid composition of CT-26 cells, 181
essential fatty acid precursor of arachidonic acid and docosahexaenoic acid, 1107
hydroperoxide, effects to DNA of human diploid fibroblasts, 961
in
guava fruit, 709
obese children with metabolic cardiovascular syndrome, 1179
metabolism of, 1319
metabolites produced from by sewage fungus, 23
transformation of, 953
LINOLENIC ACID
in
diet of breast-fed rat pups, 389
guava fruit, 709
α-LINOLENIC ACID
biosynthetic pathway for docosahexaenoic acid from, 1325
distribution, in guinea pigs, 395
effects on the conversion and oxidation of ^{13}C-α-linolenic acid, 137
essential fatty acid precursor of arachidonic acid and docosahexaenoic acid, 1107
in formula-fed infants, 105
γ-LINOLENIC ACID
as percent of fatty acids, 975
values of in plasma lipid classes in obese children, 1179
LIPASE
of *Penicillium cyclopium,* 919
purification and biochemical characterization of novel thermostable, 495
various forms of immobilized, 461
LIPID(S)
and
biosynthesis of conjugated linoleic acid in humans, 131
influences of smoking on association with apolipoprotein E, 827
retroviruses, 123
complex, 1387
composition of in embryo development of shrimp, 645
extraction procedures of, 1167
in
Anabas testudineus, 757
gelatinous antarctic zooplankton, 551
the thylakoid membrane, 739
simple, 1387
LIPID ANALOG
to accelerate fusion between liposomes under physiological pH conditions, 689
LIPID BIOSYNTHESIS
in plants, 471
LIPID METABOLISM
in model chylomicra, 1353
LIPID OXIDATION
effects of dietary red wine phenolic compounds and cholesterol on, 991
LIPID PEROXIDATION
as free radical chain reaction, 947
in cerebral spinal fluid of patients with Alzheimer's disease, 1249
processes of, 953
results of, 855
LIPID PEROXIDE
relationship to occurrence of a variety of diseases, 961
LIPID PROFILES
altered by dehydroepiandrosterone in Zucker rats, 613
LIPID SEPARATION
of polar and neutral lipid classes, 1387
LIPID SYNTHESIS
in male Lewis rats, 1079
LIPID TARGETING
in hearts of awake rats, 891
LIPODYSTROPHY
side effect of inhibitors of retrovirus infectivity, 123
LIPOGENESIS
suppression of enzymes for, 421
LIPOPEPTIDES
binding to cell membranes, 673
LIPOPHILIC ALDEHYDES
response of to factors that stimulate lipid peroxidation *in vivo,* 855
LIPOPLEX
novel lipids as components of, 721
LIPOPROTEIN LIPASE
enzyme in rat liver, 1017
LIPOPROTEINS
fatty acid composition of in Atlantic salmon, 653
LIPOSOME FUSION
accelerated by lipid analog, 689
LIPOSOMES
aggregation and fusion of, 513
determination of the phospholipid/lipophilic compounds ratio in, 1033
LIPOXYGENASE(S)
activity in ovaries of mussel, 1195
analysis of products in bovine corneal epithelium, 225
in
guava fruit, 709
mouse tissues, 701
pathway to form 12-oxo-PDA, 353
LIQUID CHROMATOGRAPHY
analysis by, 1001
LIQUIDITY
of fatty acids in human milk, 1159
LIVER FATTY ACID-BINDING PROTEIN
in L-cell fibroblasts, 729
LIVER LIPIDS
composition of, 991
increased levels of 18:1n-9 in, 1011
LIVER MICROSOME
composition of, 1335
LIVER REGENERATION
in rats after partial hepatectomy, 445
LIVER
cholesterol synthesis of, in *Anabas testudineus,* 757

concentration of γ-tocopherols in, 163

fatty acid composition of, 975
LONG-CHAIN POLYUNSATURATED FATTY ACIDS
isotopomers of, 1325
LOW DENSITY LIPOPROTEIN
effects of olive oil against oxidation of, 633
influence on the uptake by macrophages of zymosan, 55
oxidized, influcence on the uptake by macrophages of zymosan, 55
peroxidation, study of, 1087
protective effect on in rabbits, 45
LUPEOL
cyclize with β-amyrin to the dammarenyl cation, 249
LUTEIN
increased intake from vegetables, 339
LYCOPENE
comparison of absorption with astaxanthin, 803
LYMPHATIC TRANSPORT
and increasing carbon chain length, 83
investigation of absorption measured, 1073
LYSOPHOSPHATIDYLETHANOLAMINE
metabolism of, 1107

M

MAGNETIC RESONANCE
spectroscopy and imaging for *in vivo* analysis of continuous exercise on skeletal muscle triglycerides, 1313
MAGNETIC RESONANCE IMAGING
proton, 1313
MALONYL CoA
determinations of concentrations of, 1281
MAMMARY EPITHELIAL CELLS
in the normal mouse, 171
MARGARINE
dietary source of *trans*-fatty acids, 681
MASS SPECTROMETRY
analysis
by, 1001
of docosahexaenoic acid in phosphatidylserine, 187
and ceramides, 937
MASTOPARAN
inducing changes in polyphosphoinositide levels, 525
MATERNAL
metabolism in gestational diabetes mellitus, 927
MATERNAL DIETS
effects of on mean melting points of human milk fatty acids, 1159
MEAN MELTING POINTS
of human milk fatty acids, 1159
MEDITERRANEAN DIET
characterization of, 143
effectiveness in secondary prevention of coronary heart disease, 633
MEDIUM-CHAIN FATTY ACIDS
effect of positional distribution of, 1345
effects on intestinal absorprion, 83
MEMBRANE FLUIDITY
homeoviscous adaptation of, 1093
MEMBRANE FRACTIONS
phospholipid analysis of, 1289
MEMBRANE FUSION
and retroviruses, 123
MEMBRANE ORDER
in rats fed coconut oil or menhaden oil, 595
MEMBRANES
study of phospholipids of, 1093
transport of fatty acid across, 31
vesicles of, 1289
METABOLIC CARDIOVASCULAR SYNDROME
in obese children, 1179
METABOLISM
and human studies using deuterium-labeled fats, 131
of
^{13}C-α-linolenic acid, 137
lipids in *Anabas testudineus*, 757
phosphatidylethanolamine in castor oil biosynthesis, 481
METHYL ALKYLSULFIDES
derivatized products of acyl thioesters, 575
METHYLATION
evaluation of different methods of, 1147
METHYL LINOLEATE HYDROPEROXIDES
isomerization and decomposition of, 1215
MICROSOMAL DESATURATION
effects in hypertension, 1011
MICROSOMES
biosynthesis of triacylglycerols by, 481
fatty acid composition of liver, 1319
role of on biosynthetic pathway for docosahexaenoic acid from α-linolenic acid, 1325
MICROWAVE EXTRACTION
method for analyzing fatty acids, 1167
MILK FAT
New Zealand bovine, 789
MITOCHONDRIA
and β-oxidation, 91
arachidonic acid oxidation in *Dipodascopsis* associated with, 1205
of liver and muscle in ducklings, 1099
MITOCHONDRIAL MYOPATHY
risk of in patients with acquired immune deficiency syndrome under long-term antiviral therapy, 123
MITOCHONDRIAL RESPIRATION
rates of in various species, 1099
MOLECULAR SPECIES
of hepatic microsomal phosphatidylcholine, 1335
MONOACYLGLYCEROL
kinetics of, 1353
MONOENES
in adipose tissue, 681
MONOENOIC 2-HYDROXY FATTY ACID
determining double-bond positions of glucosylceramides in, 233
MONOGALACTOSYLDIACYLGLYCEROL
eukaryotic molecular species, 881
MONOOXYGENASE
and *Ajuga* hairy roots, 279
MONOUNSATURATED FATTY ACIDS
in adipose tissue, 681
Morone chrysops
arachidonate and docosahexaenoate in larval tissues, 1269
MOUSE
lipoxygenases of, 701
mechanisms of uptake of peritoneal macrophages, 55
MUSCLE
analysis of in young children, 77
MUSSEL
ovaries of, 1195
MUTANT SELECTION
based on impaired growth at suboptimal temperatures, 881
MYRISTIC ACID
in *Schizochytrium* sp., 1377

N

NEONATAL DEVELOPMENT
of piglet, 1325
NERVOUS SYSTEM
of larval and juvenile Dover sole, 745
NEURONAL MICROTUBULES
disruption of, 1249
NEUTRAL LIPIDS
in hearts of awake rats, 891
NEUTROPHILS
involvement in inflammatory disorders, 763
Nicotiana tabacum
SMT1-1 gene, molecular cloning of, 263
NITRATE STARVATION
cells accumulate triacylglycerols with, 881
NITRIC OXIDE
in inducible synthetase as membrane marker, 1239
NONOBESE WOMEN
effect of moderate exercise with no dietary intervention on adipose tissue distribution in, 769
NONPREGNANT
Korean women, 567
NORTHERN BLOT ANALYSIS
use in analyzing mouse tissues, 701
NUCLEAR MAGNETIC RESONANCE
analysis of ceramides in human vernix caseosa, 373
chemical shift of carbons, 1055
confirming structures of tetrahydrofuran-(di)hydroxy fatty acids, 1055
2D ^{1}H-^{31}P-NMR, 1289

O

OBESE CHILDREN
plasma lipids of, 1179
OBESITY
effects of dehydroepiandrosterone on, 325
effects of dehydroepiandrosterone on, 613
OLEIC ACID-ENRICHED SUNFLOWER OIL
effects on lipid metabolism and tissue composition in Atlantic salmon, 653
Δ5-OLEFINIC ACIDS
importance of in the taxonomy and phylogeny of *Pinus* spp. seed, 1
2-OLEOYL-PC
as compared to 2-oleoyl-PE, 481
2-OLEOYL-PE
incubation substrate of oleoyl-12-hydroxylase in castor microsomes, 481
OLEOYL-12-DESATURASE
in biosynthetic pathway of triacylglycerol containing ricinoleate, 481
OLEOYL-12-HYDROXYLASE
key enzyme in the biosynthesis of castor oil, 481
OLEUROPEIN
protective effect on low density lipoprotein oxidizability in rabbits, 45
OLIVE OIL
protective effect of, 633
to inhibit pro-oxidative processes, 45
ORGANOSULFUR COMPOUNDS
from garlic, 197
OVARIES
in mussel, 1195
OXIDATION
of ^{13}C-α-linolenic acid, 137
of low density lipoprotein, 633
α-OXIDATION
of cerebronic acid in peroxisomes, 1127
β-OXIDATION
capacity measured in Atlantic salmon, 653
Dipodascopsis uninucleata involves modification of the fatty acid cycle of, 1205
in liver, skeletal muscle, and heart of male weanling Wistar rats, 91
of α-linolenic acid, 395
OXIDATIVE DNA DAMAGE
in intact cells, 961
OXIDATIVE STRESS
and its role in the pathophysiology of asthma, 967
role in the pathogenesis of Alzheimer's disease, 1249
OXIDIZED LOW DENSITY LIPOPROTEIN
and changes in lipid composition, 333
from effects of passive smoking, 503
OXIDOSQUALENE CYCLASE
enzyme of eukaryotes, 297
family of enzymes, 249
8-OXO-2′-DEOXYGUANOSINE
formation of in the DNA of human diploid fibroblasts, 961
OXYLIPINS
as products of fungal fatty acid metabolism, 23
linoleic acid transforming *Clavibacter* sp. ALA2 into, 1055
OXYSTEROL(S)
induction of apoptosis of human lymphoblasts, 305
measurement as marker for *in vivo* oxidized lipoproteins in diabetes and hyperlipemia, 333
OYSTER PARASITE
Perkinsus marinus, lipid composition of, 1387

P

PACKING OF BILAYERS
cholesterol incorporation to increase, 1335
Pagrus (Chrysophrys) major
red sea bream, phospholipase A_2 from, 1359
PALMITIC ACID
at *sn*-2 position, 621
in *Schizochytrium* sp., 1377
targeted in hearts of awake rats, 891
PALMITOLEIC ACID
in *Schizochytrium* sp., 1377
N-PALMITOYLPHOSPHATIDYLETHANOLAMINE
derivative of membrane phospholipids, 513
N-PALMITOYLPHOSPHATIDYLSERINE
derivative of membrane phospholipids, 513
PALM OIL
effects on lipid metabolism and tissue composition in Atlantic salmon, 653
PANCREATIC ISLET
changes in Zucker diabetic fatty rats, 839
PARENTERAL NUTRITION
in human premature infants, 383
PARKEOL
of uncertain origin, 249
PARTIAL HEPATECTOMY
cause of changes in liver fatty acid unsaturation in the rat, 445
PARTIALLY HYDROGENATED FATS
in diet of French women, 561
PARTIALLY HYDROGENATED FISH OIL
quantitative analysis of *trans*-monoenes derived from, 681
PARTIALLY HYDROGENATED VEGETABLE OILS
in French processed foods, 815
PASSIVE SMOKING
effects on the regulation of rat aortic cholesteryl ester hydrolases by signal transduction, 503
PCR-BASED TEST
for determination of apo E isoforms, 99
PENGUINS
lipid composition of erythrocytes and thrombocytes of, 453
Penicillium cyclopium
lipase, kinetic properties of, 919

PENTAFLUOROBENZYLOXIME
derivative, generated under very mild conditions, 953
PEPTIDE LIGANDS
with liposomes to bind to cell membranes, 673
Perkinsus marinus
protozoan parasite of the eastern oyster, 1387
PERMANENT LYMPH DUCT CANNULATION
in rats, 1345
PERMEABILITY
determined by release of entrapped calcein, 213
PEROXIDATION
of lipids in *Anabas testudineus,* 757
PEROXISOME(S)
role of on biosynthetic pathway for docosahexaenoic acid from α-linolenic acid, 1325
proliferation response in mice induced by conjugated linoleic acid, 91
subcellular organelle in oxidation of cerebronic acid, 1127
PEROXISOME PROLIFERATORS
study of, 1397
PEROXYL RADICALS
consumed in course of oxidation, 1045
PHAGOCYTOSIS
zymosan internalization occurring through, 55
PHENOLIC COMPOUNDS
in olive oil, 633
PHOSPHATIDYCHOLINE
and insulin sensitivity, 1281
fatty acid changes in, 1335
newly synthesized in lamellar bodies in alveolar type II cells, 35
-peroxyl radicals, 1405
PHOSPHATIDYLCHOLINE HYDROPEROXIDES
effect on mechanisms of tubulin modification, 205
PHOSPHATIDYLETHANOLAMINE
and insulin sensitivity, 1281
metabolism of, 1107
PHOSPHATIDYLINOSITOL
from *Tetrahymena pyriformis,* 525
PHOSPHATIDYLINOSITOL BISPHOSPHATE
labeling by proton NMR, 525
PHOSPHATIDYLSERINE
accumulation
in neuronal tissues, 863
of docosahexaenoic acid in, 187
metabolism of, 1107
PHOSPHOINOSITIDES
mastoparan-induced response in *Tetrahymena pyriformis,* 525
PHOSPHOLIPASE A_2
inhibition of, 983
PHOSPHOLIPID(S)
adaptation of composition and biophysical properties of to temperature, 1093
composition, of skeletal muscle in ducklings, 1099
compositions and fatty acid patterns of in erythrocytes and blood thrombocytes of the king penguin, 453
content and composition in L-cell fibroblasts, 729
direct quantification of, 1289
factors related to fetal, 927
fatty acid composition of, 975
fraction from the sea anemone, 665
hydroperoxides used to assess lipid peroxidation of rat organs, 401
in bilayers within retroviral envelopes, 123
incorporation of fatty acids into, 693
of gastric mucosa in rats, 601
relative concentrations of in plasma fatty acids, 1185
targeted in hearts of awake rats, 891
PHOSPHOLIPID/LIPOPHILIC COMPOUND RATIO
determination of in liposomes, 1033
PHOTOSYSTEMS
unevenly distributed when thylakoid membrane fractionated in distinct domains, 739
Phoxinus phoxinus
minnows used in feeding assay, 543
pH-SENSITIVE LIPOSOMES
biophysical studies and intracellular destabilization of, 213
PHYLOGENY
of the genus *Pinus* spp., 1
PHYSIOLOGICAL pH
liposome fusion induced at, 689
PHYTANIC ACID
defect in oxidation of in Refsum disease, 1127
PHYTIC ACID
protective effect of hydrolysis products of against lipid peroxidation, 1411
Phytophthora parasitica
biochemical modification and transcriptional alterations attendant to sterol feeding, 243
PHYTOSPHINGOSINE
and ceramides, 937
PHYTOSTEROL
in liver and brain of stroke-prone spontaneously hypertensive rats, 409
in *Nicotiana tabacum,* 263
PIGLET
effects of low erucic acid canola oil in formula of, 607
hepatic microsomal and peroxisomal docosahexaenoate biosynthesis during development of, 1325
in utilization of docosahexaenoic acid from intravenous egg yolk phospholipid, 383
PIGS
adipose tissue and longissimus muscle from, 1147
PINACEAE
family containing 11 accepted genera, 1
PINOLENIC ACID
in *Pinus* spp. seed, 1
Pinus spp. general characteristics of seed fatty acid compositions, 1
PLANT
transgenic, 263
PLANT OIL
saturated and unsaturated fatty acids in, 471
PLASMA
concentrations of γ-tocopherols in, 163
hepatic lipase present in and affected by fasting, 1017
of Korean women, 567
of rabbits, 45
phospholipid fractions of, 975
PLASMA LIPIDS
fatty acid composition of, 1319
PLASMA LIPOPROTEINS
composition of in rabbits, 627
PLASMALOGEN
in
composition of CT-26 cells, 181
L-cell phospholipid mass, 729
the sea anemone, 665
Zucker diabetic fatty rats, 839
PLATELETS
comparison to avian thrombocytes, 453
PNEUMOCYSTEROL
signature lipid of *Pneumocystis carinii,* 317
PNEUMONIA
caused by *Pneumocystis carinii,* 317
POLYPHENOLS
and vasorelaxing activity, 143
POLYUNSATURATED FATTY ACID
diet of in rats, 991
effects upon the immune system, 61

esterification of by various forms of immobilized lipase, 461
incorporation into CT-26 cells, 181
in
duckling skeletal muscle, 1099
rats, 855
red microalga *Porphyridium cruentum,* 881
skeletal muscles of young children, 77
n-3 POLYUNSATURATED FATTY ACIDS
effect of supplementation on rat organs, 401
POLYUNSATURATED MONOGLYCERIDES
of the water beetle, *Agabus affinis,* 543
Porphyridium
biosynthesis of galactolipids in, 881
POTATO STOLONS
new cyclopentenones from, 353
PREADIPOCYTES
effects of conjugated linoleic acid in, 899
PREEN GLAND LIPIDS
in marine birds, 533
PREGNANT
Korean women, 567
PREGRAVID BODY MASS INDEX
negatively associated with fetal phospholipid docosahexaenoic acid, 927
PROBUCOL
and Vitamin E, 1225
PROLIFERATION
influences of conjugated linoleic acid isomers during, 899
of cells given various doses of tocotrienol-rich fraction, 171
PROPAGATION RATE
in lipoprotein peroxidation following lag-time, 1087
PROSTACYCLIN SYNTHESIS
effect of incorporation and metabolism of *trans* 20:5 in endothelial cells on, 911
PROSTAGLANDIN
ex vivo production in juvenile Dover sole, 745
PROTEIN KINASE A
and effects of passive smoking, 503
PROTEIN KINASE C
and effects of passive smoking, 503
PROTHORACIC DEFENSIVE GLANDS
in *Agabus affinis,* 543
PROTON NUCLEAR MAGNETIC RESONANCE
analysis of
levels of unsaturation, 445
phosphatidylinositol, 525
PROTOZOA
comparison of *Trypanosoma* and *Paramecium* with *Tetrahymena,* 525
PULSE-CHASE STUDIES
in male Lewis rats, 1079

R

RABBITS
and atherosclerosis after feeding synthetic fats, 621
fed with normal and high cholesterol diets, 627
protective effect of oleuropein on LDL oxidizability in, 45
RAPESEED OIL
absorption of tocopherols and fatty acids from, 1073
RAT(S)
absorption of tocopherols by, 1073
acyl-CoA-dependent Δ8 desaturase expressed in liver and testes of, 871
and
lymphatic transport of fat, 83
neonatal deposition of dietary 18:3n-3, 389
effects of
conjugated linoleic acid isomers on lipid-metabolizing enzymes, 91
dietary phenolic compounds on tocopherol, cholesterol and fatty acids in, 427
growth and fatty acid metabolism of, 975
hepatocytes cultured with purified DPA and DHA, 71
polyunsaturated diets fed to, 991
retinal structure of, 289
spontaneously hypertensive, 1011
streptozotocin-induced diabetic, 1225
γ-tocopherol concentrations in plasma and liver, 163
Wistar, 1017
RAT AORTA
and effects of passive smoking, 503
RAT LIVER MICROSOMES
in calcium-deficient and calcium-sufficient rats, 983
REACTIVE OXYGEN SPECIES
in copper-induced low density lipoprotein peroxidation, 1087
RED CELLS
fatty acids of in Korean women, 567
REFSUM DISEASE
α-oxidation of cerebronic acid normal in, 1127
RENAL ENLARGEMENT
in rats, 1225
RETINA
in neonatal Sprague-Dawley rats, 289
RETROCONVERSION
of docosapentaenoic acid to arachidonic acid in presence of high docosahexaenoic acid, 71
REVERSE CHOLESTEROL TRANSPORT
process of, 1239
REVERSE TRANSCRIPTASE
inhibition of viral, 123
REVERSE TRANSCRIPTION-POLYMERASE CHAIN REACTION
use in analyzing mouse tissues, 701
RUMEN FATS
in diet of French women, 561
RUMINANT MILK FAT
extracted from cheese, 1027

S

SAFFLOWER OIL
effects of supplementation on rat organs, 401
SATURATED FATTY ACIDS
in *Schizochytrium* sp., 1377
reduction of levels in crop plant using animal desaturase, 471
SCIADONIC ACID
in *Pinus* spp. seed, 1
SEA ANEMONE
structure of phosphoethanolamines of, 665
SEED OILS
in *Pinus* spp., 1
SELECTED ION RECORDING
in identification of trace 21:0 and 20:2 fatty acids eluting with conjugated linoleic acid isomers, 797
SELENIUM
in blood of asthmatics, 967
SEMINAL PLASMA
effects of docosahexaenoic acid supplementation, 149
SEPSIS
leading to hypertriglyceridemia, 1079
SERINE
glycerophospholipid in the rat brain, 1107
SERINE BASE EXCHANGE REACTION
biosynthesis of phosphatidylserine by, 187
phosphatidylserine synthesized *via,* 863

SERUM LIPIDS
in human patients with Alzheimer's disease, 1305
SESAME SEED
effect on plasma γ-tocopherols, 163
SESAMIN
effects on tocopherol, cholesterol and fatty acids in rats, 427
Shewanella putrefaciens sp. SCRC-2738
EPA synthesis gene from introduced into marine cyanobacterium by conjugation, 1061
SHRIMP EMBRYOGENESIS
lipids, fatty acids, and energy use during, 645
SIGNATURE LIPIDS
for diagnosis of *Pneumocystis carinii* pneumonia, 317
SILICIC ACID THIN-LAYER CHROMATOGRAPHY
used for analysis of positional distribution of fatty acids, 579
SILVER ION HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY
analysis by, 1147
SKELETAL MUSCLE
effects of continuous exercise on triglycerides in, 1313
SKIN
of guinea pigs, 395
SMOKING
influences on the association between apolipoprotein E and lipids, 827
Solanum tuberosum
linoleic and linolenic acids form new cyclopentenone fatty acids from, 353
SOYBEAN OIL
absorption of tocopherols and fatty acids from, 1073
fed to stroke-prone spontaneously hypertensive rats, 409
SPECIFICITY
ethyl esterification, 461
SPERM MOTILITY
in asthenozoospermic males, 149
SPHINGANINE
dihydroceramide generated by acylation of, 1117
SPHINGOLIPID
determining double-bond positions in monoenoic 2-hydroxy fatty acids of glycosylceramides by GC–MS, 233
synthesis of, 1117
Sphingomonas paucimobilis
substrate structure required for α-hydroxylation, 365
SPHINGOMYELINASE
cell membrane-associated phospholipase, 1259
Spinacia oleracea L.
used in preparation of thylakoid vesicles, 739
SQUALENE
levels of in the plasma cholesterol precursor, 1037
SQUALENE-HOPENE CYCLASE
enzyme of bacterial membranes, 297
STABLE ISOTOPE
and use in examining *in vivo* metabolism of essential fatty acids in humans, 137
assay of lutein, 339
STEROIDS
of the water beetle, *Agabus affinis,* 543
STEROL(S)
biosynthesis of in *Ajuga* hairy roots, 279
based on the sitosterol nucleus, 1371
STEROL BIOSYNTHESIS
cloning and characterization of the *Dictyostelium discoideum* cycloartenol synthase cDNA, 249
STEROL C5 DESATURASE
evidence of activity in *Phytophthora parasitica,* 243
STEROL FEEDING
of *Phytophthora parasitica,* 243
STEROL METABOLISM
of *Phytophthora parasitica,* 243
STEROL METHYL OXIDASE
of *Candida albicans,* 257
STEROL-C24-METHYLTRANSFERASES
in transgenic *Nicotiana tabacum* L., 263
STEROL Δ7 REDUCTASE
evidence of activity in *Phytophthora parasitica,* 243
STEROL SYNERGISM
desmosterol complements subthreshold levels of cholesterol by, 289
STRESS
gastric erosions induced in rats by, 601
STRESS TOLERANCE
in larval and juvenile Dover sole, 745
STROKE-PRONE SPONTANEOUSLY HYPERTENSIVE RATS
and influence of sources of dietary oils on life span, 409
STRUCTURAL LIPID ORGANIZATION
determined by ^{31}P nuclear magnetic resonance spectroscopy, 213
STRUCTURE
of oxysterols, 305
STRUCTURED TRIACYLGLYCEROL
effects of different medium-chain fatty acids on intestional absorption of, 83
transported into lymphatics, 1345
SUBCELLULAR DISTRIBUTION
of DNS-X, 1397
SUNFLOWER OIL
absorption of tocopherols and fatty acids from, 1073
SUPERCRITICAL FLUID EXTRACTION
method for analyzing fatty acids, 1167
SUPEROXIDE DISMUTASE
measures of, 967
SUPEROXIDE PRODUCTION
neutrophil function attenuated with dietary fish oil, 763
SURFACTANT
packaging in lung tissues, 35
phospholipid composition of, 35
secretion in lung tissues, 35
SYNAPTOSOME
from rat brain, 1107
SYNDROME X
insulin resistance syndrome in obese children, 1179
Synechococcus sp. NKBG15051c
marine cyanobacterium conjugated with EPA-producing bacterium, 1061
SYNTHASE
estrogen, 271
SYNTHESIS
of steroidal aromatase inhibitors, 271

T

TAXOLEIC ACID
in *Pinus* spp., 1
TAXONOMY
importance of Δ5-olefinic acids in *Pinus* spp., 1
TELEOST
Pagrus major, 1359
TEMPERATURE
adaptation of composition and biophysical properties of phospholipids to, 1093
Tetrahymena
in study of lipid metabolism, 525
Th1 TYPE CYTOKINES
role in maintenance of chronic eczematous lesions, 61
Th2 TYPE CYTOKINES
subtype synthesizes IL-4, 61
THERAPEUTIC
oxysterols as potential agents, 305

Thermoplasma acidophilum
characterization of caldarchaetidylglycerol analogs from, 1155
THIN-LAYER CHROMATOGRAPHY
analysis of positional distribution of fatty acids, 579
and ceramides, 937
densitometric determination, of the phospholipid/lipophilic compounds ratio in liposomes, 1033
in
human vernix caseosa, 373
quantitative analysis of long-chain *trans*-monoenes, 681
lipids of *Perkinsus marinus* analyzed by, 1387
THIOBARBITURIC ACID-REACTIVE SUBSTANCES
used to assess lipid peroxidation of rat organs, 401
THROMBOCYTES
lipid composition of in subantarctic seabird, the king penguin, 453
THYLAKOID MEMBRANE DOMAINS
isolation of, 739
THYROID CELLS
porcine, 1259
THYROTROPIN
essential hormone in thyroid cell differentiation, 1259
TISSUE COMPOSITION
in Atlantic salmon, 653
T-LYMPHOCYTES
infiltration into the ears of mice, 61
TOCOPHEROL(S)
absorption of by rats, 1073
antiproliferative and apoptotic effects on normal mouse mammary epithelial cells, 171
α-TOCOPHEROL
analysis of the addition products of, 1405
effects
of, 1215
of dietary phenolic compounds on, 427
on secretion into bile, 163
product of oxidation/reduction of, 1045
urinary metabolite, 163
γ-TOCOPHEROL
abundant in common vegetable oil, 163
effects of dietary phenolic compounds on, 427
α-TOCOPHEROLHYDROQUINONE
antioxidant reactions of, 1045
α-TOCOPHEROLQUINONE
product of α-tocopherol oxidation, 1045
α-TOCOPHEROL TRANSFER PROTEIN
and discrimination between different forms of tocopherol, 163
TOCOTRIENOL
antiproliferative and apoptotic effects on normal mouse mammary epithelial cells, 171
trans-3 16:1 ACID
in study of cow, goat, and ewe cheese fats, 1027
TRANSCONJUGANT CYANOBACTERIA
in production of fatty acids, 1061
TRANSESTERIFICATION
in situ, 1167
trans-FATTY ACIDS
analysis of by gas chromatography, 681
in adipose tissue of French women, 561
TRANSFORMATION
cloning experiments with *Nicotiana tabacum*, 263
TRANSGENIC
plant tissue, 471
technology using canola plant as host, 975
trans-HEXADECENOIC ISOMERS
study of in cow, goat and ewe cheese fats, 1027
trans-OCTADECENOIC ISOMERS
in French processed foods, 815
TRIACYLGLYCEROL(S)
biosynthesis of by castor microsomes, 481
in
gelatinous antarctic zooplankton, 551
New Zealand bovine milk fat, 789
of red microalga *Porphyridium cruentum*, 881
stereospecific analysis in tuna and bonito, 579
synthesized in the rough endoplasmic reticulum of the secreting cells of the mammary gland, 1159
within oil bodies in *Schizochytrium* sp., 1377
TRIACYLGLYCEROL-RICH EMULSIONS
chylomicrons resembling, 55
TRIALKYL PHOSPHOLIPID
from *Thermoplasma acidophilum*, 1155
TRIGLYCERIDE(S)
accumulation suppressed by conjugated linoleic acid, 899
in synthetic fats fed to rabbits, 621
pattern of association between individual fatty acids and concentrations of, 1185
synthesis of, 1079
TRIMETHYLSULFONIUM HYDROXIDE
using for gas chromatographic analysis, 575
Tringa nebularia
comparison of preen waxes, 533
TUBULIN
modification by phosphatidylcholine hydroperoxides, 205

U

U18666A
treatment of neonatal rats with, 289
ULTRAVIOLET
use in analysis of New Zealand bovine milk fat, 789
UNDERIVATIZED FATTY ACIDS
analysis of, 1147
UNSATURATED FATTY ACIDS
in
Schizochytrium sp., 1377
plant oils, 471
URINE
in rats, 855

V

VEGETABLE OILS
fed to stroke-prone spontaneously hypertensive rats, 409
VERNIX CASEOSA
polar lipids present in human, 373
VERY LONG CHAIN FATTY ACIDS
synthesis pathway of, 487
VESICLE AGGREGATION/FUSION
composed of *N*-palmitoyl derivatives of membrane phospholipids, 513
VESICLE SIZE
analysis of, 513
VINYL ESTERS
kinetic properties of *Penicillium cyclopium* lipases studied with, 919
VINYL SQUALENE DERIVATIVES
as inhibitors of squalene and oxidosqualene cyclase, 297
VITAMIN B_{12}
determination by microparticle immunoassay, 143
VITAMIN E
and Probucol, 1225
as isoform α-tocopherol, 171
deficiency of, 855
effects of supplementation on rat organs, 401
major lipid-soluble antioxidant present in membranes, 1073

VITAMINS
in plasma dietary antioxidants, 967

W

WATER BEETLES
polyunsaturated monoglycerides in, 543
WAX ESTERS
in gelatinous antarctic zooplankton, 551
of red knot *Calidris canutus*, 533
WHITE BASS
effects of arachidonate and docosahexaenoate on growth and survival, 1269
WHOLE BODY
of guinea pigs, 395
WINE
use of red variety to counteract endothelial dysfunction in humans, 143
WINE POLYPHENOLS
response to in rats, 991

X

XANTHINE/XANTHINE OXIDASE
and passive smoking, 503

Y

YOUNG CHILDREN
and relationships between fatty acid composition of muscle and erythrocyte membrane phospholipid, 77

Z

ZELLWEGER SYNDROME
peroxisomal disorder, 1127
ZETA POTENTIAL
measurement of, 513
ZINC
in blood of asthmatics, 967
ZOO BLOT